

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : **09-330260**

(43)Date of publication of application : **22.12.1997**

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(51)Int.Cl.

**G06F 12/00**

**G06F 12/00**

**G06F 17/21**

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(21)Application number : **08-152607**

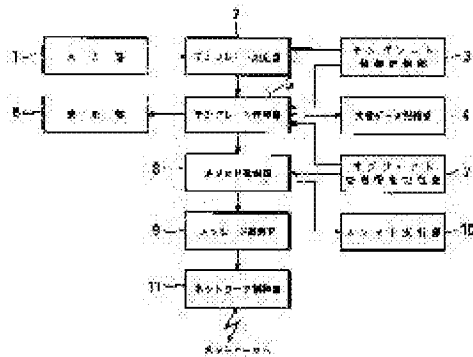
(71)Applicant : **RICOH CO LTD**

(22)Date of filing : **13.06.1996**

(72)Inventor : **KAWAKAMI KAZUHIRO**

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(54) **DOCUMENT MANAGING DEVICE**



(57)Abstract:

PROBLEM TO BE SOLVED: To improve operability and to protect a document by easily executing an operation on the document by making clear the operation, which can be executed on the document, and generally setting the operation on the document.

SOLUTION: A method retrieval part 8 retrieves a method corresponding to the operation selected by an input part 1 based on object managing information managed in an object managing information storage part 7 and when that method exists in a present document managing device, a method execution part 10 executes that method. Besides, when that retrieved method exists at the other document managing device connected through a network, a message control part 9 transmits a message for executing the method through a network control part 11 for that document managing device and executes the method at that document managing device.

## LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

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## CLAIMS

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[Claim(s)]

[Claim 1] The input of the template information which defines various kinds of actuation to document data, An input means to choose from the actuation list of [ in this template information ] one which is performed to said document data of actuation, A display means to display each actuation defined as said template information, and a document data storage means to memorize said document data, A template information storage means to memorize the template information inputted by said input means, A template setting means to hold and set the template information inputted by said input means as said template information storage means, The template management tool which retrieves template information from said template information storage means, An object management information storage means to manage the object management information which consists of a method of the class information on an object, and this class information which is an executive program to said document data, A method retrieval means to search the method applicable to the actuation chosen by said input means based on the object management information managed by this object management information storage means, A message control means to send out the message for performing a method based on the method

searched by this method retrieval means, and the positional information in which an object exists, When the method searched by said method retrieval means exists in self-documentation-management equipment, When the method searched by method activation means to perform the method, and said method retrieval means exists in other documentation-management equipments connected by the network, Documentation-management equipment characterized by having a network control means to transmit the message sent out by said message control means to documentation-management equipment besides the above.

[Claim 2] Documentation-management equipment characterized by establishing a means to add and delete actuation of the arbitration to said template information, in documentation-management equipment according to claim 1.

[Claim 3] Documentation-management equipment characterized by establishing a means to inherit the contents of said template information and to create a new template in documentation-management equipment according to claim 1 or 2.

[Claim 4] Documentation-management equipment characterized by establishing an alternative method retrieval means to search and perform the same method from other templates when the method of said template is not able to be performed in documentation-management equipment given in claim 1 thru/or any 1 term of 3.

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#### DETAILED DESCRIPTION

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[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to documentation-management equipments, such as electronic file equipment memorized possible [ retrieval of document data ].

[0002]

[Description of the Prior Art] Conventional documentation-management equipment was performed by choosing an actuation menu and an actuation icon with the interactive interface using input units which the documentation-management equipment offers, such as a keyboard and a mouse, and displays, such as LCD, etc., when performing various kinds of actuation (function) to a document.

[0003] However, by there being what cannot perform actuation which documentation-management equipment has depending on a document, and enabling it to choose clearly the actuation which an operator can

perform in that case, or forbidding actuation in which documentation-management equipment cannot be performed. Since the operator was preventing from choosing the actuation, when an operator performed a certain actuation to a document, there was a problem that it was unclear which actuation can be performed.

[0004] moreover, a protection attribute [ as opposed to / although it had realized by setting up an attribute to a document when the actuation to a document was limited / a document as the attribute which can be set up ] -- that is, -- "-- reading (read) -- " -- "-- writing in (write) -- " -- "-- it is deletion (delete)", a user authority attribute, etc., and actuation of the contents of the document had the problem that it could not set up. And a setup and modification of the attribute had to be serially made for every document, and there was also a problem of becoming a troublesome activity for an operator.

[0005] Then, use backgrounds, such as level (a beginner, expert, etc.) of operating environments, such as an usable device, the purposes of use (a text, a graphic form, a graph, table, etc.), and a user, were set up as a parameter table, and there was documentation-management equipment (for example, refer to JP,2-72470,A) which enabled it to offer the environment which limited the text processing facility and was introduced to the user by using the parameter table.

[0006]

[Problem(s) to be Solved by the Invention]

However, with the above documentation-management equipments, since the document and the parameter table did not link, whenever it carried out the reorganization

collection of the document, the parameter table had to be reselected according to the purpose of use, and there was a problem of becoming a troublesome activity, for an operator.

[0007] Moreover, since the actuation which can be performed to a document could not be restricted, when operators other than a document preparation person edited a document, there is a possibility that the restricted actuation may be used and there was a problem in respect of protection of a document.

[0008] This invention is made in view of the above-mentioned point, and while clarifying the actuation which can be performed to a document and being able to be made to make actuation activation to a document easy, it aims at enabling it to realize improvement in operability, and protection of a document, as the actuation to a document can be set up general-purpose.

[0009]

[Means for Solving the Problem] The input of the template information which defines various kinds of actuation to document data in order that this invention may attain the above-mentioned purpose, An input means to choose from the actuation list of [ in the template information ] one which is performed to the above-mentioned document data of actuation, A display means to display each actuation defined as the above-mentioned template information, and a document data storage means to memorize the above-mentioned document data, A template information storage means to memorize the template information inputted by the above-mentioned input means, A template setting means to hold and set the template information

inputted by the above-mentioned input means as the above-mentioned template information storage means, The template management tool which retrieves template information from the above-mentioned template information storage means, An object management information storage means to manage the object management information which consists of a method of the class information and class information on the object which is an executive program to the above-mentioned document data, A method retrieval means to search the method applicable to the actuation chosen by the above-mentioned input means based on the object management information managed by the object management information storage means, A message control means to send out the message for performing a method based on the method searched by the method retrieval means, and the positional information in which an object exists, When the method searched by the above-mentioned method retrieval means exists in self-documentation-management equipment, When the method searched by method activation means to perform the method, and the above-mentioned method retrieval means exists in other documentation-management equipments connected by the network, Documentation-management equipment equipped with a network control means to transmit the message sent out by the above-mentioned message control means to documentation-management equipment besides the above is offered.

[0010] Moreover, it is good to establish a means to add and delete actuation of the arbitration to the above-mentioned template information.



Furthermore, it is good to establish a means to inherit the contents of the above-mentioned template information and to create a new template. When the method of the above-mentioned template is not able to be performed, it is good to establish an alternative method retrieval means to search and perform the same method from other templates further again.

[0011] Since the documentation-management equipment by this invention can define various kinds of actuation to a document as a template by constituting with the above-mentioned input means, a display means, a document data storage means, a template information storage means, a template setting means, a template management tool, an object management information storage means, a method retrieval means, a message control means, a method activation means, and a network control means, it can unify the actuation to a document and a document. Moreover, since a limit of the actuation to a document is also possible, prevention of an operator's operation mistake and improvement in operability can be aimed at.

[0012] Moreover, if a means to add and delete actuation of the arbitration to the above-mentioned template information is established, the actuation defined as a template can be added and deleted, and the function of a documentation management system will be added or it can perform limiting actuation for every document easily.

[0013] Furthermore, if a means to inherit the contents of the above-mentioned template information and to create a new template is established, an operator can create a new template easily only by adding desired actuation to the

existing template. Moreover, since the low order template has inherited the contents of the high order template when modification arises in a high order template, there is no need of changing the contents of the template of the low order created newly, and document actuation can be set up flexibly.

[0014] If an alternative method retrieval means to search and perform the same method from other templates is established further again when the method of the above-mentioned template is not able to be performed, an efficient and positive document processing system can be performed by carrying out alternative activation of the method of other templates.

[0015]

[Embodiment of the Invention] Hereafter, the gestalt of implementation of this invention is concretely explained based on a drawing. Drawing 2 is drawing showing the example of a configuration of the network which connected the documentation-management equipment of 1 operation gestalt of this invention. The documentation-management equipments 51-53 are connected by this network respectively possible [ data communication ].

[0016] Documentation-management equipment 51 is the workstation of the object positional information "WS001" which has an authority object (authority-object). Moreover, documentation-management equipment 52 is the workstation of the object positional information "WS002" which has a printer object (printer-object) and a facsimile object (fax-object). Furthermore, documentation-management equipment 53 is the

workstation of the object positional information "WS003" which has a printer a-object (printer-a-object).

[0017] Drawing 1 is the block diagram showing the configuration of the documentation-management equipments 51-53 shown in drawing 2. The documentation-management equipments 51-53 contained the microcomputer which consists of CPU, a ROM, RAM, etc., respectively, and are equipped with each function part of the input section 1, the template setting section 2, the template information storage section 3, the document data storage section 4, the template Management Department 5, a display 6, the object management information storage section 7, the method retrieval section 8, the message control section 9, the method activation section 10, and the network control section 11.

[0018] The input section 1 inputs template information for defining the actuation to document data. Moreover, when performing actuation of document data, an actuation item is specified from an actuation list. In addition, the input of various kinds of information, such as an alphabetic character input to this documentation-management equipment from an operator and menu selection, is also performed.

[0019] This input section 1 can consider a keyboard. Moreover, you may be the software keyboard inputted by displaying a key on a display, choosing with a mouse, or forming a touch sensor and touching the applicable part on a display with a finger, a pen, etc. Furthermore, inputting what was written by hand using the handwriting OCR technique with data, such as an

alphabetic character, is also considered.

[0020] The template setting section 2 memorizes the template information which defines various kinds of actuation to the document data created based on the input from the input section 1 in the template information storage section 3. The template information storage section 3 is memory which memorizes and holds the template information created by the template setting section 2.

[0021] The document data storage section 4 is memory which memorizes the document data created based on the input from the input section 1. As this document data storage section 4, memory, such as an optical disk unit of the rewritable memory and the media of RAM, a hard disk drive unit, a floppy disk drive unit, MO, etc., and others, can be considered, for example. The structure of this document data is as being shown in drawing 3, and is mentioned later.

[0022] The template Management Department 5 retrieves the template information specified from the template information storage section 3. That is, actuation of the document data chosen as the display 6 by the input section 1 is searched and displayed.

[0023] In order to display the actuation name which can be operated to the document data chosen by the input section 1, a template link information is acquired from the document data storage section 4, based on the template link information, predetermined template information is retrieved from the template information storage section 3, a class display name and a method display name are acquired from the object management information storage section 7 based

on the retrieved template information, and it is displayed on a display 6.

[0024] A display 6 displays the actuation information defined as the template information acquired from the alphabetic character, the template Management Department 5, and the object management information storage section 7 which were inputted in order to set up document data and template information. Moreover, the cursor for carrying out edit of the displayed alphabetic character etc. is also displayed. As this display 6, things which can perform the writing and elimination of an alphabetic character electrically, such as CRT and a liquid crystal display, can be considered, for example.

[0025] The object management information storage section 7 has stored and managed the class information on the object which actually performs various kinds of actuation defined as template information, i.e., the object which is the executive program of each actuation, etc. A format of the DS of the object management information on this object management information storage section 7 is as being shown in drawing 5, and is mentioned later.

[0026] The method retrieval section 8 searches a method from the object management information storage section 7 based on the actuation chosen to the document data chosen by the input section 1. That is, the method applicable to the actuation chosen from the object management information on the object management information storage section 7 in the input section 1 is searched.

[0027] The message control section 9 sends out the message for performing the method of the object which exists in the

documentation-management equipment, when a method exists in other documentation-management equipments. That is, the message for performing the method to the documentation-management equipment which stored the object of the method based on the method and the object positional information of object management information which were searched by the method retrieval section 8 is transmitted through the network control section 11.

[0028] The method activation section 10 performs the method, when the method searched by the method retrieval section 8 exists in self-documentation-management equipment. The network control section 11 controls the physical network interface of data communication with other documentation-management equipments, and when the method searched by the method retrieval section 8 exists in other documentation-management equipments connected by the network, it transmits the message sent out by the message control section 9 through a network to other documentation-management equipments.

[0029] Drawing 3 is drawing showing the example of a format of the document DS memorized in the document data storage section 4 of the above-mentioned documentation-management equipments 51-53. This document DS 60 consists of document data information 61 and a template link information 62 which set up information, such as a name of template information, and a storing place of template information.

[0030] Drawing 4 is drawing showing the example of a format of the definition of template

information which defined the actuation to the document memorized in the template information storage section 3 of the above-mentioned documentation-management equipments 51-53.

First, the template information which defined the actuation to document data beforehand is created.

[0031] As shown in drawing 4 , a template name, the class name of the object to perform, the method name that is actuation of a document are defined as template information. The definition of the template information may describe a script directly, as shown in drawing 3 , and it may set it up by the user interface which documentation-management equipment offers. The created template information is set as the template information storage section 3, and is memorized by the template setting section 2.

[0032] When an operator creates document data using the template information registered into the template information storage section 3, the template Management Department 5 acquires template information from the template information storage section 3, and displays the list of the template information registered to the operator on a display 6.

[0033] Then, an operator chooses template information by the input section 1. If template information is chosen, the template Management Department 5 will memorize the template link information which is a link information of template information in the document data storage section 4 with document data information.

[0034] Drawing 5 is drawing showing the example of a format of the object management information memorized in the object management information storage section 7 of the above-mentioned

documentation-management equipments 51-53.

This object management information stores items, such as a class, a class display name, an object name, object positional information, a method name, a method display name, and a superclass, as information about the object in this documentation management system built in the network.

[0035] Next, activation of actuation of document data is explained. If the document data to which an operator performs actuation by the input section 1 are chosen, a template link information is acquired from the document data storage section 4, and the template Management Department 5 will retrieve the template information memorized by the template information storage section 3 based on the acquired template link information, and will acquire the corresponding template information.

[0036] Furthermore, the class name and method name of an object which are set as the object management information storage section 7 based on the class name and method name which are defined as the template information are acquired. The object management information on the object management information storage section 7 has structure shown in drawing 5.

[0037] For example, a class: An authority's (authority) name is "authority" and a view (view), edit (edit), and DIRETO (delete) exist as the method. Each display name is "a display", "edit", and "deletion." This acquired display name is displayed on a display 6.

[0038] Then, a desired thing is chosen out of actuation in which the operator was displayed by the input section 1. The example of selection is explained based on drawing 6. Drawing 6 is drawing showing an example of the document



actuation selection screen displayed on the display 6 of the above-mentioned documentation-management equipments 51-53.

[0039] If the document list 70 is displayed and the document of the document name "information of xx lecture" of the publication number 003 of them is chosen (the slash in drawing is given and shown), the object list 71 will be expressed as the document actuation selection screen shown in drawing 6 as a menu of 1 hierarchy eye to the document. The list of the display names of the class of the object which can be performed in the selected document is displayed on this object list 71. In this case, "authority", "airline printers "A" and FAX", and "mail" are displayed.

[0040] Next, selection of "authority" of the object list 71 displays the method list 72 as a menu of 2 hierarchy eye (the slash in drawing is given and shown). The list of the actuation which can be performed to selected document data, i.e., the display name of a method, is displayed on this method list 72. In this case, "a display", "edit", and "deletion" are displayed. Here, when performing "edit" which is actuation of "authority", an operator does the selection input of the column of "edit" of the method list 72 by the input section 1 (the slash in drawing is given and shown).

[0041] And if a method is chosen, the class to which a method belongs is acquired from template information, and the method retrieval section 8 will retrieve the object management information which corresponds to the class from the object management information storage section 7, and will acquire object positional information based on the object management information. It judges in which documentation-management equipment

the object chosen based on the object positional information exists, and when the object which corresponds in self-documentation-management equipment exists, the method activation section 10 performs the method.

[0042] Moreover, when the object which corresponds in other documentation-management equipments exists, the message for performing the method which corresponds to the documentation-management equipment through the network control section 11 by the message control section 9 is transmitted.

[0043] Drawing 7 is a flow chart which shows document actuation processing of the above-mentioned documentation-management equipment. This processing displays the display name of the class and the method which acquires a template link information from that selected document data, progresses to step 3, retrieves template information from that acquired template link information, progress [ document data are chosen from the input section at step ("S" shows among drawing) 1, and it progresses to step 2, and ] to step 4, and are defined as that retrieved template information.

[0044] Then, progress to step 5, and choose actuation from the input section, progress to step 6, and object positional information is acquired from the object management information on the selected actuation. If the method of the actuation chosen by progressing to step 7 judges whether it exists in the documentation-management equipment (WS) of self and exists in the documentation-management equipment (WS) of self, it will progress to step 8, will perform that method by the method activation section, and will

end this processing.

[0045] Moreover, if a method exists in other documentation-management equipments by decision of step 7, the message for performing that method will be transmitted to other documentation-management equipments (WS) with which it progresses to step 9 and a method exists, the method by that documentation-management equipment will be performed, and this processing will be ended.

[0046] Next, the processing for starting the searched method is explained. As shown in drawing 2, when the object is distributing to each documentation-management equipments 51-53 on a network, processing in case an operator operates document data with the documentation-management equipment 51 of self is explained. For example, a class:authority's (authority) method: When performing edit (edit), the method retrieval section 8 discovers the documentation-management equipment which has the object in which a method exists from the object positional information of edit with reference to the object management information shown in Table 1.

[0047] In this case, the method of the object:authority (authority-object) who is a class:authority's activation object: Since edit exists in self-documentation-management equipment 51, the method activation section 10 performs an object:authority's method:edit.

[0048] Thus, since various kinds of actuation to document data can be defined as a template, the actuation to document data and document data can be unified. Moreover, since a limit of the actuation to document data is also possible, prevention of an operator's operation mistake and improvement in

operability can be aimed at.

[0049] By the way, by remaking a template, for an operator, it is a troublesome activity, and it cannot respond to whenever [ the ] flexibly to the escape of a documentation management system and is inconvenient to it for the addition or deletion of a program function to the above-mentioned documentation-management equipment to occur, or add modification to the actuation defined as template information.

[0050] Then, it is [ that it is / where modification arises in a documentation management system / a case, and ] good to change actuation of document data to raise the expandability of a system, as actuation of document data can be changed easily, to offer the actuation for which it was suitable for every document data, and to aim at improvement in operability. Next, the operation gestalt of such documentation-management equipment is explained.

[0051] Drawing 8 is the block diagram showing the configuration of the documentation-management equipment of other operation gestalten of this invention. The same sign is given to the part which is common in drawing 1 , and the explanation is omitted. This documentation-management equipment equips the function of the template setting section 2 of the above-mentioned documentation-management equipment with the template setting section 20 which prepared the function of a means to add and delete actuation of the arbitration to template information.

[0052] With this documentation-management equipment, template information for the template setting section 20 to define actuation of document

data is set up through the input section 1, and that template information is stored in the template information storage section 3. And addition of the new actuation to the template information and processing of deletion of the actuation defined in the template information are also performed.

[0053] Next, additional processing of a concrete object is explained. When newly adding actuation of an e-mail function to the already created document data, the template setting section 20 carries out additional registration of the information on an e-mail function at the template information on the template information storage section 3.

[0054] Drawing 9 is drawing showing the example of a format of a definition of the template information when adding new actuation to the template information shown in drawing 4 . The class:mail (mail), method:Sendo (send), and receipt (receive) are newly defined as the template information shown in drawing 4 (part enclosed with the broken-line frame in drawing).

[0055] Therefore, the actuation defined as a template can be added and deleted, and the function of a documentation management system is added or it can perform limiting actuation for every document easily.

[0056] Thus, since the template setting section 20 can add and delete to arbitration the method defined as template information, i.e., actuation, when a method is added to an object or there is modification, it can be coped with by changing the definition of template information easily. Moreover, the template setting section 20 can realize easily to change the contents of actuation for every document data.

[0057] In addition, with the above-mentioned documentation-management equipment, although actuation of the arbitration to template information was added and deleted by the template setting section 20, the function part which performs this processing may newly be prepared. For example, it is good to prepare the addition and cutout which is based on actuation information from the input section 1, and adds and deletes a direct control to the template information storage section 3.

[0058] By the way, when actuation is newly added with the above-mentioned documentation-management equipment using the existing template information, new template information is created and correction occurs to the existing template information, it is necessary to make the same correction also to the new template information which inherited and created the contents of the existing template information.

[0059] While there is few new template information which was made to derive the existing template information and was created, it is good, but if the number of the new template information increases, it must stop having to correct the existing part to each of that template information, becomes an activity troublesome for an operator, and is very inconvenient.

[0060] Then, it is good to simplify more maintenance services, such as creation of the template information on a documentation management system, and correction, and to aim at improvement in the maintainability of template information. Next, the operation gestalt of such documentation-management equipment is explained.

[0061] Drawing 10 is the block diagram showing

the configuration of the documentation-management equipment of the operation gestalt of further others of this invention. The same sign is given to the part which is common in drawing 1 and drawing 8 , and the explanation is omitted. This documentation-management equipment is equipped with the template setting section 30 which prepared the function of a means to inherit the contents of template information to the function of the template setting section 20 of the above-mentioned documentation-management equipment, and to create a new template to it.

[0062] Moreover, in case template information is retrieved to the function of the template Management Department 5 of the above-mentioned documentation-management equipment from the template information storage section 3, when the contents from high order template information are inherited and defined as it in template information, the template Management Department 31 which prepared the function to retrieve the high order template information also has.

[0063] With this documentation-management equipment, template information for the template setting section 30 to define actuation of document data is set up through the input section 1, and that template information is stored in the template information storage section 3. Moreover, addition of the new actuation to the template information and processing of deletion of the actuation defined in the template information are also performed.

[0064] Furthermore, in case new template information is created, a template information name [ a name ] to make it inheriting the contents

from the existing template information is defined, the contents of the existing template information are inherited, new template information is created, and it memorizes in the template information storage section 3.

[0065] Next, the definition of the existing template information in this documentation-management equipment is inherited, and the processing which creates and memorizes new template information is explained. When an operator adds a certain actuation to the existing template information and creates new template information, by the actuation input from the input section 1, the template setting section 30 creates new template information, and sets up the existing template information name there.

[0066] And the template setting section 30 adds the existing template information name which makes the created new template information inherit the contents of a definition, and memorizes it in the template information storage section 3.

[0067] Next, creation processing of a concrete new template is explained. Drawing 11 is drawing showing the example of a format of a definition of the new template information which inherited and created the contents of a definition of the template information shown in drawing 4 . What is necessary is just to describe supertemplate:standard (part enclosed with the broken-line frame in drawing), as shown in drawing 11 when creating the new template information on a template information name "extend\_a" based on the contents of a definition of the template information on the template information name "standard" shown in drawing 4 .

[0068] In this way, by the template Management



Department 31, when using a new template "extend\_a", actuation of a template "standard" can also be used.

[0069] Next, an operator creates document data using a new template, and the processing when performing actuation which the document data has is explained. The template Management Department 31 acquires a template link information from the document data storage section 4, retrieves the template information memorized by the template information storage section 3 based on the acquired template link information, and acquires the corresponding template information.

[0070] Then, the template Management Department 31 acquires the high order template information on the succession origin of the contents of a definition from the template information storage section 3, when it inspects whether the contents of a definition of the existing template information are inherited by the template information and succession of the contents of a definition is performed.

[0071] Furthermore, the template Management Department 31 acquires the class name and method name of an object which are set as the object management information storage section 7 from the class name defined as template information, and a method name, and displays the acquired display name on a display 6.

[0072] And an operator chooses desired actuation out of the actuation displayed on the display 6. The selection approach chooses required actuation based on the document actuation selection screen shown in drawing 6 by the input section 1.

[0073] If a method is chosen by the operator, the

method retrieval section 8 will acquire the class to which a method belongs from template information, will retrieve the object management information which corresponds to the class from the object management information storage section 7 based on the acquired class, and will acquire the object positional information which corresponds from the retrieved object management information.

[0074] And when it judges in which documentation-management equipment the object which corresponds based on the object positional information exists and the object exists in self-documentation-management equipment, the method activation section 10 performs the object.

[0075] Moreover, when the object exists in other documentation-management equipments, the message for performing the method which corresponds to the documentation-management equipment through the network control section 11 by the message control section 9 is transmitted, and the object of a method is performed with the documentation-management equipment.

[0076] Drawing 12 is a flow chart which shows document actuation processing of the documentation-management equipment of the operation gestalt of further others of this invention. This processing acquires a template link information from document data at step ("S" shows among drawing) 11, progresses to step 12, and retrieves template information from that acquired template link information.

[0077] Then, it judges whether the template name which progresses to step 13 and by which the contents of a definition were inherited from the retrieved template information exists, and if it

exists, it will progress to step 14, and the high order template information will be acquired and it will progress to step 15. Moreover, if the template name by which the contents of a definition were inherited by decision of step 13 does not exist, it progresses to step 15 as it is.

[0078] It judges whether the display name of the class and method which are defined as template information by the display at step 15 is displayed, and it progresses to step 16, and the object positional information of the actuation which chose actuation from the input section, progressed to step 17 and was chosen from object management information is acquired, it progresses to step 18, and a method exists in self-documentation-management equipment (WS) based on the object positional information.

[0079] And if a method exists in self-documentation-management equipment (WS) by decision of step 18, it will progress to step 19, that method will be performed by the method activation section, and this processing will be ended.

[0080] Moreover, if a method does not exist in other documentation-management equipments by decision of step 18, the message for performing that method is transmitted to the documentation-management equipment (WS) with which it progresses to step 20 and a method exists, the method by that documentation-management equipment is performed, and this processing is ended.

[0081] Thus, since this documentation-management equipment inherits the contents of the existing template information and creates a new template, an operator can create

a new template easily only by adding desired actuation to the existing template. Moreover, since the low order template has inherited the contents of the high order template when modification arises in a high order template, there is no need of changing the contents of the template of the low order created newly, and document actuation can be set up flexibly.

[0082] In addition, with the above-mentioned documentation-management equipment, although it was made to make new template information inherit the contents of a definition of the existing template information by the template setting section 20, the function part which performs this processing may newly be prepared.

[0083] By the way, when actuation to document data is performed with the above-mentioned documentation-management equipment, and the program to perform had not started, or it has stopped enough and carries out according to a certain failure, it is inconvenient in the ability of actuation of document data not to be processed.

[0084] So, when actuation defined as the template information on a documentation management system cannot be performed, a high order template exists and identity operation exists in the high order template, it is good to aim at improvement of operability to document data, and improvement in the certainty of processing, as alternative activation of the actuation is carried out. Next, the operation gestalt of such documentation-management equipment is explained.

[0085] Drawing 13 is the block diagram showing the configuration of the documentation-management equipment of other

operation gestalten further again of this invention. The same sign is given to drawing 1 , drawing 8 , and the part that is common in drawing 10 , and the explanation is omitted. This documentation-management equipment has formed the alternative method retrieval section 40 in the documentation-management equipment shown in drawing 10 .

[0086] The alternative method retrieval section 40 inspects whether the same method in the high order template information exists, when the method defined as template information is not able to be performed and the high order template is defined in the template information.

[0087] And when the same method in high order template information exists based on the inspection result and the method exists in self-documentation-management equipment, it is made to perform by the method activation section 10, and when the method exists in other documentation-management equipments, the message sent out by the message control section 9 is transmitted to other documentation-management equipments through a network, and a method is performed with the documentation-management equipment.

[0088] Drawing 14 is drawing showing the example of a definition of the template which defined the actuation to the document in the documentation-management equipment of this operation gestalt. The template information "extend\_b" shown in drawing 14 has inherited the contents of a definition of the template information "standard" shown in drawing 4 . Moreover, the class "printer\_a" is defined as template information "extend\_b", and the class

"printer\_a" has inherited the contents of a definition of a class "printer."

[0089] Next, the actuation processing to the document data using the template information shown in drawing 14 in this documentation-management equipment is explained. The method retrieval section 8 acquires the object positional information of a class "printer\_a" from the object management information storage section 7, and performs the method of an object "printer\_a" from the object positional information by the method activation section 10 or the message control section 9, and the network control section 11.

[0090] And it inspects whether the method retrieval section 8 has else the method which can start the alternative method retrieval section 40, when it judges whether the method "printer" of an object "printer\_a" has been performed and the method is not able to be performed by a certain cause.

[0091] Since the above-mentioned class "printer\_a" has inherited the class "printer", the alternative method retrieval section 40 acquires the object positional information of a class "printer" from the object management information storage section 7, and performs the method of an object "printer" based on the object positional information by the method activation section 10 or the message control section 9, and the network control section 11.

[0092] Drawing 15 is a flow chart which shows document actuation processing of the documentation-management equipment of this operation gestalt. It judges whether this processing acquired object positional information from object

management information at step ("S" shows among drawing) 21, progressed to step 22, performed the method, progressed to step 23, and that method has performed it.

[0093] If a method cannot be performed by decision of step 23, it progresses to step 24, an alternative method is searched from template information and it progresses to step 25, and object positional information is acquired from object management information, it progresses to step 26, the same method is performed based on that object positional information, and this processing is ended.

[0094] Thus, with this documentation-management equipment, when the selected method cannot perform by a certain cause, an efficient and positive document processing system can be performed by carrying out alternative activation of the method of other templates.

[0095]

[Effect of the Invention] As explained above, as the actuation which can be performed to a document can be clarified, actuation activation can be easily performed to a document and the actuation to a document can be set up general-purpose, according to the documentation-management equipment by this invention, improvement in operability and protection of a document can be realized.

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[Translation done.]

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1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

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DESCRIPTION OF DRAWINGS

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[Brief Description of the Drawings]

[Drawing 1] It is the block diagram showing the configuration of the documentation-management equipment of 1 operation gestalt of this invention.

[Drawing 2] It is drawing showing the example of a configuration of the network which connected the documentation-management equipment of 1 operation gestalt of this invention.

[Drawing 3] It is drawing showing the example of a format of the document DS memorized to the documentation-management equipment of 1 operation gestalt of this invention.

[Drawing 4] It is drawing showing the example of a format of a definition of the template information memorized to the documentation-management equipment of 1 operation gestalt of this invention.

[Drawing 5] It is drawing showing the example of a format of the object management information memorized to the documentation-management equipment of 1 operation gestalt of this invention.

[Drawing 6] It is drawing showing an example of the document actuation selection screen displayed with the documentation-management equipment



of 1 operation gestalt of this invention.

[Drawing 7] It is the flow chart which shows the document actuation processing in the documentation-management equipment of 1 operation gestalt of this invention.

[Drawing 8] It is the block diagram showing the configuration of the documentation-management equipment of other operation gestalten of this invention.

[Drawing 9] It is drawing showing the example of a format of a definition of the template information when adding new actuation to the template information shown in drawing 4 .

[Drawing 10] It is the block diagram showing the configuration of the documentation-management equipment of the operation gestalt of further others of this invention.

[Drawing 11] It is drawing showing the example of a definition of the template which defined the actuation to the document in the documentation-management equipment of the operation gestalt of further others of this invention.

[Drawing 12] It is the flow chart which shows document actuation processing of the documentation-management equipment of the operation gestalt of further others of this invention.

[Drawing 13] It is the block diagram showing the configuration of the documentation-management equipment of other operation gestalten further again of this invention.

[Drawing 14] It is drawing showing the example of a definition of the template which defined the actuation to the document in the documentation-management equipment of other

operation gestalten further again of this invention.

[Drawing 15] It is the flow chart which shows document actuation processing of the documentation-management equipment of other operation gestalten further again of this invention.

[Description of Notations]

1: Input section 2, 20, 30: Template setting section

3: Template information storage section

4: Document data storage section

5 31: Template Management Department

6: Display 7: Object management information storage section

8: Method retrieval section 9: Message control section

10: Method activation section 11: Network control section

40: Alternative method retrieval section

51, 52, 53: Documentation-management equipment (WS)

60: Document DS 61: Document data information

62: Template link information 70: Document list

71: Method list 72: Actuation list

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[Translation done.]